GOVERNMENT OF ANDHRA PRADESH
ABSTRACT

Agriculture & Cooperation Department - Horticulture – Implementation procedure for Automation based on Micro Irrigation System - Bill of Quantity (BoQ), Unit cost and operational modalities drawn by the Committee - Approval - Orders - Issued.

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AGRICULTURE & COOPERATION (H&S) DEPARTMENT

G.O.Rt.No.1004 Dated:19.11.2025.

Read:

From the Director of Horticulture & Sericulture, A.P, Guntur, Letter No.APMIP/Tech/543/2025, dt:04.11.2025 (C.No. 2690659 received on 27.10.2025).

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O R D E R:-

In the letter read above, the Director of Horticulture & Sericulture, A.P, Guntur has stated that, the Andhra Pradesh Micro Irrigation Project (APMIP), under the Department of Horticulture, is planning to implement innovative automation-based micro irrigation systems to enhance water use efficiency in both agriculture and horticulture. As per the operational guideline of Per Drop More Crop (PDMC)-2025, States may encourage Automation in the Micro Irrigation Systems for ease of operation with minimal or no manual intervention thereby achieving greater efficient use of Micro Irrigation Systems by the beneficiaries with a unit cost of Rs.40,000/Ha. The Project Approval Committee (PAC), has approved automation for an area of 7500 Ha with an outlay of 15 crores for Andhra Pradesh under AAP-PDMC (2025-26). The Automation unit may be linked with solar energy wherever possible at the farm. It is desirable that States should target 5% of Micro Irrigation coverage under the scheme with Automation. The cost of automation may vary with the type of Automation adopted by the beneficiary. For adoption of Automation in the Micro Irrigation system under the scheme, the financial assistance to the beneficiary will be restricted on the existing rate of subsidy to the indicative cost of Rs.40000/Ha.

2. Further, the Director of Horticulture & Sericulture, A.P., Guntur has stated that, the Guidelines issued by the Government of India do not cover Bill of Quantity (BoQ), unit cost and operational modalities for the installation of automation system. Government vide G.O.Rt.No.70, Agriculture & Cooperation (H&S) Departmen, Dt:10.02.2025 have Constituted a Committee to study and finalize the Modalities, Unit Cost and Guidelines for implementation of Automation based Micro Irrigation System under APMIP. 1st Committee Meeting was conducted on Dt:13.03.2025 to study and finalize the Modalities, Unit Cost and Guidelines for implementation of Automation based Micro Irrigation System. Further in continuation of that meeting the Committee members have submitted their remarks and suggestions on eligible criteria to be followed (general & Technical Specifications) for empanelment of eligible manufacturers to supply Automation based Micro Irrigation Systems under APMIP. Duly considering the opinion of the Committee members, a draft EoI is prepared for empanelment of eligible manufacturers to supply Automation based Micro Irrigation Systems under APMIP.

3. The Director of Horticulture & Sericulture, A.P., Guntur has also stated that,a notification issued with inviting Expression of Interest for "Empanelment of eligible manufacturers for supply of Automation based Micro Irrigation Systems under Andhra Pradesh Micro Irrigation Project (APMIP)". A Technical Committee has been formed for evaluation of EoI duly verifying submitted documents and shortlist the eligible suppliers to supply automation based micro irrigation systems under APMIP based on their eligible criteria. Technical Committee meeting for Evaluation of EoI was conducted on 29.5.2025 and

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shortlisted following Seven companies out of 10 participated companies and recommended for Price bid negotiationsM/s Automat Irrigation Pvt Ltd, New Delhi.

M/s Jain Irrigation Systems Ltd, Jalgon, Maharashtra.

M/s Netafim Irrigation India Pvt Ltd, Vadodara, Gujarat

M/s Mobitech Wireless Solutions Pvt Ltd, Tamil Nadu.

M/s Nyasta Gramojvala Solutions Pvt Ltd, Hyderabad.

M/s Uflow Automation, Rajkot, Gujarat.

M/s Industill Farmtech Pvt Ltd, Pune

4. The Director of Horticulture & Sericulture, A.P., Guntur has further stated that, Technical Committee meeting was conducted on 05.06.2025 with the shortlisted companies for negotiation of Price Bid to supply Automation based Micro Irrigation Systems under APMIP and the committee approved proposals were submitted to the Government for approval and empanel the above short listed companies for supply of automation components under APMIP along with component specifications and Prices. To facilitate seamless integration of automation, the Government has empanelled manufacturers of automation components to supply under APMIP and has fixed component-wise prices for each company along with specifications.

5. The Director of Horticulture & Sericulture, A.P., Guntur has also stated that, the Committee has approved the Price list for components of Wired and wireless Automation systems, Unit costs for wired automation systems for different spacing's up to 5 Ha along with mandatory components for wired automation system (Annexure 1 to 8). The Automation committee has suggested the following implementation procedure for Micro irrigation automation:-

(i) As per the Operational guidelines of Per Drop More Crop-2024, for adoption of automation in the micro irrigation system under Per Drop More Crop, the financial assistance to the beneficiary will be restricted to on the existing rate of subsidy to the indicative unit cost of Rs. 40,000/ha. Accordingly, 55% assistance of Rs.22,000/ha for small and marginal farmers and a 45% assistance of Rs.18,000/ha for other category farmers can be extended for adoption of automation system in addition to the subsidy provided for the installation of a micro irrigation system.

(ii) However, the Bill of Quantity (BoQ) i.e. spacing & area wise material requirement, unit cost for various spacing & area has not been given in the guideline. Hence, the committee suggested to adopt the Bill of Quantity, unit cost and operational modalities for implementation (Annexure 1 to 8) and operational modalities for implementation.

6. The Director of Horticulture & Sericulture, A.P., Guntur has further stated that based on the suggestion and operational modalities recommended by the Automation Committee and duly considering the procedures followed under APMIP, the draft guidelines for implementation of automation in the State of A.P. have been prepared. Accordingly, the draft guidelines along with detailed enclosures (Annexure-A & Annexures – 1 to 8) are submitted for perusal and approval. Therefore the DoH&S, A.P., Guntur has requested the Government to issue necessary orders for the implementation of the proposed automation system across the State, in accordance with the approved guidelines.

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7. Government after careful examination of the matter, hereby permitted the Director of Horticulture & Sericulture for the implementation of the Automation based on Micro Irrigation System across the State, in accordance with the approved guidelines at Annexure-A, Prices for Components of Wired Automation system at Annexure-1, Prices for Components of Wireless Automation system at Annexure-2, Unit costs for Wired Automation System up to 5 Ha with different Spacings at Annexure -3, Mandatory Components for Wired Automation based Micro Irrigation System – 1 to 5 Hectare at Annexure-4 to 8 are annexed to this order.

8. The Director of Horticulture & Sericulture, A.P., Guntur shall take necessary action accordingly in the matter.

(BY ORDER AND IN THE NAME OF THE GOVERNOR OF ANDHRA PRADESH)

B RAJSEKHAR
EX-OFFICIO SPECIAL CHIEF SECRETARY TO GOVERNMENT

To
The Director of Horticulture & Sericulture, A.P, Guntur(w.e).

Copy to:

P.A to Hon'ble Minister (Agriculture)
P.S to the Ex-Officio Special Chief Secretary to Government,
Agriculture & Cooperation Department
Sf/Sc.

//FORWARDED :: BY ORDER//

SECTION OFFICER

Annexure-A to G.O.Rt.No.1004, dt.19.11.2025
Agriculture & Cooperation (H&S) Department

GUIDELINES FOR IMPLEMENTATION OF AUTOMATION-BASED MICRO IRRIGATION UNDER APMIP IN ANDHRA PRADESH

1. Introduction

The Andhra Pradesh Micro Irrigation Project (APMIP), under the Department of Horticulture, is implementing innovative automation-based micro irrigation systems to enhance water use efficiency in both agriculture and horticulture. The initiative focuses on integrating smart irrigation technologies, such as solenoid valves, sensors, controllers, and automated fertigation units to optimize water usage, minimize dependence on manual labor, and improve overall productivity across the State.

2. Objectives

- To promote precision irrigation through automation technologies.
- To reduce water wastage and improve efficiency in micro irrigation systems.
- To integrate smart sensors and controllers for real-time irrigation management.
- To enhance fertigation efficiency by automating fertilizer application.
- To improve productivity and sustainability of horticultural crops.

6. Eligibility of Farmers

- Farmers in Andhra Pradesh engaged in horticulture and agriculture are eligible, subject to the following criteria:
  - Must have an existing functional micro irrigation system (Drip) sanctioned under APMIP
  - Small, marginal, and SC/ST farmers will be given priority.
  - Farmers with access to a Functional water source.
  - Farmers adopting protected cultivation (greenhouse, shade net, poly house) will also eligible.
- Farmers applying for a new Micro Irrigation (MI) system as well as farmers having an existing MI system in their fields are eligible for sanction of automation-based micro irrigation.
- Priority shall be given to farmers applying for a new MI system along with automation.

7. Components Covered Under Automation: The following automation components will be supported under APMIP:

A. Irrigation Automation

- ✓ Solenoid Valves – Electrically controlled valves to regulate water flow.
- ✓ Automated Controllers – Pre-programmed devices to control irrigation schedules.
- ✓ Soil Moisture Sensors – To assess real-time soil moisture levels and trigger irrigation.
- ✓ Weather-Based Sensors – Sensors to measure temperature, humidity, and rainfall for smart irrigation scheduling.
- ✓ Remote Monitoring & Control Systems – GSM/Wi-Fi/Bluetooth-enabled controllers for remote operation.

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B. Fertigation Automation

- ✓ Fertilizer Injection Systems – Automated dosing of nutrients based on crop requirements.
- ✓ pH & EC Sensors – To monitor water quality and nutrient levels.
- ✓ Flow Meters – To measure water usage and prevent over-irrigation.

**Mandatory items for Wired, wireless, Optional items enclosed (Annexure I to III).*

- ➢ *Wherever the Stabilizer and Pump Start Relay are inbuilt in the Controller, separate Stabilizer and Pump Start Relay units shall not be considered mandatory.*
- ➢ *If any other mandatory item is already inbuilt in the Controller, that particular item shall also not be treated as mandatory.*
- ➢ *The number and size of Solenoid Valves may be modified based on field conditions and availability of water resources. Any additional cost incurred beyond the unit cost due to such changes shall be borne by the farmer.*

8. Financial Assistance & Subsidy Pattern: As Per PDMC-PM RKVY guidelines, States may encourage Automation in the Micro Irrigation Systems for ease of operation with minimal or no manual intervention thereby achieving greater efficient use of Micro Irrigation Systems by the beneficiaries. The Automation unit may be linked with solar energy wherever possible at the farm. It is desirable that States should target 5% of Micro Irrigation coverage under the scheme with Automation. The cost of automation may vary with the type of Automation adopted by the beneficiary. For adoption of Automation in the Micro Irrigation system under the scheme, the financial assistance to the beneficiary will be restricted on the existing rate of subsidy to the indicative cost of Rs. 40000/Ha.

APMIP will provide financial assistance as per the following subsidy structure:

Category of Farmer	Subsidy (%)	Maximum Limit (Rs per Ha)
Small & Marginal Farmers	55%	22,000/-
SC/ST Farmers	55%	22,000/-
Other Farmers	45%	18,000/-

*Farmers have to bear the remaining cost.

6. Implementation Process

A. Application & Approval

- ✓ Farmers shall apply online through the APMIP portal at RSKs/ at local Horticulture Office.
  - ➢ *The application must include*:
    - Land ownership documents.
    - Aadhaar and bank details.
    - Proof of existing micro irrigation system.
- ✓ Applications will be verified and Approved by the PD/ District Micro Irrigation officer, APMIP and Administrative sanctions will be issued with the approval of District Collector/ Chairman, APMIP

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B. Implementation, Monitoring & Evaluation process as per the existing Procedure of APMIP: All activities including farmer registration, preliminary inspection, benchmark survey, preparation of Bill of Quantities (BoQs), remittance of farmer contribution, administrative sanction, and release of the farmer contribution as mobilisation advance, Installation process, Post installation processes, final inspections and release of subsidy to MI companies/ Empanelled Manufacturer of Automation components shall be undertaken strictly in accordance with the provisions of the APMIP Implementation guidelines - 2025-26.

C. Mode of Installation

a. Newly sanctioned MI farmers shall install automation only through a micro irrigation company empanelled with APMIP.

b. Farmers with existing MI systems may install automation either:

i) Through an empanelled Manufacturer of Automation Components

(or)

ii) Through an empanelled MI company under APMIP.

D. Adoption of Approved Prices

a) Firms applying for implementation of automation must strictly follow the prices approved by APMIP for both mandatory and optional automation components.

b) Subsidy shall not exceed the unit cost fixed for wired automation systems.

E. Subsidy Calculation

a) The subsidy will be calculated based on the unit cost proposed by APMIP for mandatory components.

b) MI companies shall adopt the prices approved by APMIP for various automation components while preparing the BOQs.

c) Where the APMIP unit cost exceeds the Government of India (PDMC- PM RKVY) ceiling of Rs. 40,000/Ha, the subsidy shall be restricted to Rs. 40,000/Ha.

d) The system cost may be lower or higher than the Indicative Cost. If the system cost is lower, the subsidy shall be calculated on the system cost or Rs. 40,000 per hectare, whichever is less.

e) If the system cost is higher than the Indicative Cost, the subsidy shall be restricted to the Indicative Cost or Rs. 40,000 per hectare, whichever is less.

F. Selection of Components

a) Farmers may select both mandatory and optional components as per their field requirements, provided these components meet the approved specifications of APMIP.

b) In such cases, the subsidy shall be restricted to the APMIP-specified rate, and the farmer shall bear any additional cost involved.

G. Wireless Automation Systems

a) If a farmer opts to install a wireless automation system, the unit cost proposed for the wired system shall be adopted for subsidy calculation.

b) Any additional cost involved for wireless installation shall be borne entirely by the farmer. i.e., the cost of all mandatory, optional, wireless components shall be restricted to the unit cost approved by PDMC/APMIP.

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H. Branding

- The main components like Irrigation & Fertigation Controllers, Solenoid Valves, Automatic Quick Pressure Relief, Rain Sensor, Flow Detection Sensor, Soil Moisture Sensor, Automatic Filters, Water Meters with Reed Switch, Fertikit /Fertilizer Dosing System must have Pad Printing/ Laser Printing/Permanent Sticker on it for "APMIP".

I. Mode of Payment

- The supply prices of components shall not exceed the approved APMIP rates as fixed by the Price Sub-Committee.
- No payment shall be made by the Department to the Manufacturer directly. Payments for supplies to MI companies shall be governed as per mutual terms between the Manufacturer and MI companies.
- Payments shall be made directly to the MI Company for the supply and installation of automation units. However, if the automation units are supplied and installed by empanelled automation manufacturers, the payments shall be made to the respective empanelled automation manufacturers.
- At the time of administrative sanction, the farmer's contribution shall be released as a mobilization advance to the MI Companies/Empanelled Manufacturers of Automation Components, subject to approval of the District Collector and issuance of the work order.
- The balance amount shall be released with the approval of the District Collector, upon completion of installation, submission of requisite documents, and final inspection of the installed units by the PD/DMIO/APD, APMIP of the concerned district.

J. After-Sales Support and Warranty

- The MI Company/ Manufacturer shall Provide warranty for the components -A minimum warranty of one year must be provided for all supplied Automation based micro irrigation components from the date of supply (Physical damages & any damages happening due to electric surge, high voltage spikes, thunderstorms & lightening will not be covered in warranty).
- Adequate after-sales service support shall be ensured either directly or through local representatives.
- Offer after-sales service including maintenance for a minimum period of 3 years from the date of installation.
- MI Company/ Manufacturer shall ensure availability of spare parts and local service technicians throughout Andhra Pradesh.
- Service calls must be addressed within 72 hours of complaint registration.

7. Roles & Responsibilities

A. Role of APMIP

- ✓ Timely issue of Administrative sanctions,
- ✓ Conduct awareness programs on Automation, Provide Technical guidance and necessary trainings to the farmers.
- ✓ Attend grievances raised by farmers.

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B. Role of Suppliers

- ✓ Supply automation-based micro irrigation units as per technical specifications given and Prices approved by APMIP.
- ✓ Ensure timely delivery, installation, and after-sales service.
- ✓ Provide a minimum warranty of ONE year on automation units.
- ✓ Conduct training for farmers on usage and troubleshooting.
- ✓ Provide necessary technical support, manuals, training, and guidance to MI firms and farmers.
- ✓ Offer after-sales service including maintenance for a minimum period of 3 years from the date of installation.

C. Role of Farmers

- ✓ Maintain the installed system and use it efficiently.
- ✓ Report any technical issues to suppliers/APMIP.
- ✓ Farmers must not sell or transfer the subsidized automation equipment.
- ✓ The system should be used only for agricultural purposes.

8. Grievance Redressal

- ➢ Farmers can lodge complaints regarding delays, malfunctioning equipment, or subsidy issues through:

• APMIP Helpline: 18004252960
• APMIP Online Grievance Portal:[www.horticulturedept.ap.gov.in]

B RAJSEKHAR,
EX-OFFICIO SPECIAL CHIEF SECRETARY TO GOVERNMENT

Annexure-1 to G.O.Rt.No.1004, dt.19.11.2025
Agriculture & Cooperation (H&S) Department
Prices for Components of Wired Automation system

S.No	Component Name		Unit	Price (in Rs.) *
1	Controllers			
	a	Controller unit - 4 Station for Irrigation and fertigation	Nos	21,200
	b	Controller unit - 5-12 Station for Irrigation and fertigation	Nos	47,500
	c	Controller unit - 4 Station with Pump Start relay and Voltage Stabilizer	Nos	9,000
	d	Controller unit - 5-12 Station with Pump Start relay and Voltage Stabilizer	Nos	15,000
2	Solenoid Valves			
	a	Solenoid Valve -50 mm	Nos	3,450
	b	Solenoid Valve -63 mm	Nos	5,600
	c	Solenoid Valve -75 mm	Nos	7,800
	d	Solenoid Valve -90 mm	Nos	10,000
	e	Solenoid Valve -63 mm for fertigation Purpose	Nos	5,600
3	Pump Start relay (24VAC)		Nos	2,580
4	Voltage Stabilizer		Nos	5,250
5	Conduit Pipe (25mm/ 10 Kg/cm2 : IS 4985		Mtr	34
6	Cables			
	a	Cables (1 Sqmm) IS 694	Mtr	30
	b	Cables (1.5 Sqmm) IS 694	Mtr	45
	c	Cables (2.5 Sqmm) IS 694	Mtr	75
7	Automatic Quick pressure release valve		Nos	
	a	1.5"	Nos	5,800
	b	2"	Nos	6,300
	c	2.5"	Nos	7,100
	d	3"	Nos	8,000
8	Rain Sensor		Nos	1,700
9	Dry Gel Waterproof Connector		Nos	30
10	Control station encloser box		Nos	6,500
11	2" Flow Detection Sensor		Nos	1,550
12	IoT SIM Charges with data and cloud charges @ 2 years			1,600
13	Fittings and Installations			5%

* Maximum permissible rate per each component under APMIP as per Specifications of APMIP.
** Component prices may vary as per the Prices approved by Government of A.P. for different Companies. While calculating the Subsidy actual cost has to be Considered.

B RAJSEKHAR,
EX-OFFICIO SPECIAL CHIEF SECRETARY TO GOVERNMENT

Annexure-2

Prices for Components of Wireless Automation system

S.No		Component Name	Unit	Price (in Rs.)*
1	Controllers			
	a	Controller unit - 4 Station for Irrigation and fertigation	Nos	21,200
	b	Controller unit - 5-12 Station for Irrigation and fertigation	Nos	47,500
	c	Controller unit - 4 Station with Pump Start relay and Voltage Stabilizer		14,000
	d	Controller unit - 5-12 Station with Pump Start relay and Voltage Stabilizer		15,000
2	Solenoid Valves			
	a	Solenoid Valve 90 mm	Nos	10,000
	b	Solenoid Valve 75 mm	Nos	7,800
	c	Solenoid Valve 63 mm	Nos	5,600
	d	Solenoid Valve 50 mm	Nos	3,450
	e	Solenoid Valve 63mm For Fertigation Purpose	Nos	5,600
3	Pump Start relay (24VAC)		Nos	2,580
4	Voltage Stabilizer		Nos	5,250
5	Cables			
	a	Cables (1 Sqmm) IS 694		30
	b	Cables (1.5 Sqmm) IS 694		45
	c	Cables (2.5 Sqmm) IS 694		75
6	Controller Base Unit (Wireless Transmiter)		Nos	17,000
7	Remote Terminal Unit (Wireless Receiver) With Solar Panel & Solar Charger Unit & Lithium Battery+Pole		Nos	26,000
8	Booster Unit (Optional)			
9	Automatic Quick Pressure Release Valve			
	a	1.5"	Nos	5,800
	b	2"	Nos	6,300
	c	2.5"		
	d	3"	Nos	
10	Rain Sensor		Nos	1,700
11	Control station encloser box		Nos	6,500
12	2" Flow Detection Sensor		Nos	1,550
13	IoT SIM Charges with data and cloud charges @ 2 years		Nos	1,600
14	Fittings and Installations			5%

* Maximum permissible rate per each component under APMIP as per Specifications of APMIP.

** Component prices may vary as per the Prices approved by Government of A.P. for different Companies. While calculating the Subsidy actual cost has to be Considered.

B RAJSEKHAR,
EX-OFFICIO SPECIAL CHIEF SECRETARY TO GOVERNMENT

Annexure-4

Mandatory Components for Wired Automation based Micro Irrigation System - 1 Hectare

S.No	Component Name	Unit	12mX12m	10mX10m	9mX9m	8mX8m	7mX7m	6mX6m	5mX5m	4mX4m	3mX3m	2.5mX2.5m	2mX2m	1.5mX1.5m	2.5mX0.6m	1.8mX0.6m	1.5mX0.6m	1.2mX0.6m
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
1	**Controllers**																	
a	Controller unit - 4 Station for Irrigation and Fertigation	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
b	Controller unit - 5-12 Station for Irrigation and Fertigation	Nos																
c	Controller unit - 4 Station with Pump Start relay and Voltage Stabilizer	Nos																
d	Controller unit - 5-12 Station with Pump Start relay and Voltage Stabilizer	Nos																
2	**Solenoid Valves**																	
a	Solenoid Valve -50 mm	Nos	**1**	**1**	**1**	**1**	**1**					**1**	**1**	**1**	**1**	**1**	**2**	**2**
b	Solenoid Valve -63 mm	Nos						**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
c	Solenoid Valve -75 mm	Nos																
d	Solenoid Valve -90 mm	Nos																
e	Solenoid Valve -63 mm for fertigation Purpose	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
3	**Pump Start relay** (24VAC) *	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
4	**Voltage Stabilizer** *	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
5	**Conduit Pipe** (25mm/ 10 Kg/cm2 : IS 4985	Mtr	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**
6	**Cables**																	
a	Cables (1 Sqmm) IS 694	Mtr	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**	**150**
b	Cables (1.5 Sqmm) IS 694	Mtr																
c	Cables (2.5 Sqmm) IS 694	Mtr																
7	**Automatic Quick pressure release valve** *	Nos																
a	1.5"	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
b	2"	Nos																
c	2.5"	Nos																
d	3"	Nos																
8	**Rain Sensor** *	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
9	**Dry Gel Waterproof Connector (For wire Connections)**	Nos	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**
10	**Control station encloser box** *	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
11	**2" Flow Detection Sensor** *	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
12	**IoT SIM Charges with data and cloud charges @ 2 years**		**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**

* These components may be included based on field condition & Farmer's requirement

**This indicative cost shall be multiplied by the area (in hectares) up to a maximum of 5 Hectares only.

***The subsidy shall be calculated based on the system cost or indicative cost, whichever is the less.

B RAJSEKHAR,
EX-OFFICIO SPECIAL CHIEF SECRETARY TO GOVERNMENT

Annexure-3

Unit costs for Wired Automation System up to 5 Ha with different Spacings

S.No	Spacing	1 Ha	2 Ha	3 Ha	4 Ha	5 Ha
1	12mX12m	40,583	68,964	1,22,871	1,53,804	1,87,740
2	10mX10m	40,583	68,964	1,22,871	1,53,804	1,87,740
3	9mX9m	40,583	68,964	1,22,871	1,53,804	1,87,740
4	8mX8m	40,583	68,964	1,22,871	1,53,804	1,87,740
5	7mX7m	40,583	68,964	1,22,871	1,53,804	1,87,740
6	6mX6m	42,840	68,964	1,29,644	1,58,319	1,89,998
7	5mX5m	42,840	68,964	1,29,644	1,58,319	1,89,998
8	4mX4m	42,840	74,844	1,29,644	1,58,319	1,89,998
9	3mX3m	42,840	74,844	1,29,644	1,58,319	2,01,758
10	2.5mX2.5m	46,463	78,467	1,39,146	1,70,079	2,01,758
11	2mX2m	46,463	78,467	1,39,146	1,70,079	2,01,758
12	1.5mX1.5m	46,463	78,467	1,39,146	1,70,079	2,01,758
13	2.5mX0.6m	46,463	78,467	1,39,146	1,70,079	2,01,758
14	1.8mX0.6m	46,463	78,467	1,39,146	1,70,079	2,01,758
15	1.5mX0.6m	50,085	78,467	1,39,146	1,70,079	2,01,758
16	1.2mX0.6m	50,085	78,467	1,39,146	1,70,079	2,01,758
As per PDMC Guidelines the Indicative Cost		40,000	80,000	1,20,000	1,60,000	2,00,000
The Indicative Cost is limited to PDMC Indicative cost or System cost, whichever is less		40,000	System cost or (up to 80,000)	1,20,000	1,60,000	System cost or (up to 2,00,000)
* As per PDMC guidelines, the indicative cost is limited to ₹40,000 per Hectare.						
**This indicative cost shall be multiplied by the area (in hectares) up to a maximum of 5 Hectares only.						
***The subsidy shall be calculated based on the system cost or indicative cost, whichever is the less.						
**** Component prices may vary as per the Prices approved by Government of A.P. for different Companies. While calculating the Subsidy actual cost has to be Considered.						

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Annexure-5

Mandatory Components for Wired Automation based Micro Irrigation System – 2 Hectares

S.No	Component Name	Unit	12mX12m	10mX10m	9mX9m	8mX8m	7mX7m	6mX6m	5mX5m	4mX4m	3mX3m	2.5mX2.5m	2mX2m	1.5mX1.5m	2.5mX0.6m	1.8mX0.6m	1.5mX0.6m	1.2mX0.6m
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
1	**Controllers**																	
a	Controller unit - 4 Station for Irrigation and Fertigation	**Nos**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
b	Controller unit - 5-12 Station for Irrigation and Fertigation	**Nos**																
c	Controller unit - 4 Station with Pump Start relay and Voltage Stabilizer	**Nos**																
d	Controller unit - 5-12 Station with Pump Start relay and Voltage Stabilizer	**Nos**																
2	**Solenoid Valves**																	
a	Solenoid Valve -50 mm	**Nos**										**1**	**1**	**1**	**1**	**1**	**1**	**1**
b	Solenoid Valve -63 mm	**Nos**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
c	Solenoid Valve -75 mm	**Nos**																
d	Solenoid Valve -90 mm	**Nos**																
e	Solenoid Valve -63 mm for fertigation Purpose	**Nos**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
3	**Pump Start relay (24VAC)**	**Nos**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
4	**Voltage Stabilizer**	**Nos**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
5	**Conduit Pipe** (25mm/ 10 Kg/cm2 : IS 4985	**Mtr**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**	**50**
6	**Cables**																	
a	Cables (1 Sqmm) IS 694	**Mtr**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**
b	Cables (1.5 Sqmm) IS 694	**Mtr**																
c	Cables (2.5 Sqmm) IS 694	**Mtr**																
7	**Automatic Quick pressure release valve**	**Nos**																
a	1.5"	**Nos**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
b	2"	**Nos**																
c	2.5"	**Nos**																
d	3"	**Nos**																
8	**Rain Sensor**	**Nos**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
9	**Dry Gel Waterproof Connector (For wire Connections)**	**Nos**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**
10	**Control station encloser box**	**Nos**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
11	**2" Flow Detection Sensor**	**Nos**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
12	**IoT SIM Charges with data and cloud charges @ 2 years**		**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
13	**Fittings and Installations @ 5%**																	

* As per PDMC guidelines, the indicative cost is limited to ₹40,000 per Hectare.

**This indicative cost shall be multiplied by the area (in hectares) up to a maximum of 5 Hectares only.

***The subsidy shall be calculated based on the system cost or indicative cost, whichever is the less.

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Annexure-6

Mandatory Components for Wired Automation based Micro Irrigation System – 3 Hectares

S.No	Component Name	Unit	12mX12m	10mX10m	9mX9m	8mX8m	7mX7m	6mX6m	5mX5m	4mX4m	3mX3m	2.5mX2.5m	2mX2m	1.5mX1.5m	2.5mX0.6m	1.8mX0.6m	1.5mX0.6m	1.2mX0.6m
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
1	**Controllers**																	
a	Controller unit - 4 Station for Irrigation and Fertigation	Nos																
b	Controller unit - 5-12 Station for Irrigation and Fertigation	Nos	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
c	Controller unit - 4 Station with Pump Start relay and Voltage Stabilizer	Nos																
d	Controller unit - 5-12 Station with Pump Start relay and Voltage Stabilizer	Nos																
2	**Solenoid Valves**																	
a	Solenoid Valve -50 mm	Nos	4	4	4	4	4	1	1	1	1	2	2	2	2	2	2	2
b	Solenoid Valve -63 mm	Nos	1	1	1	1	1	4	4	4	4	5	5	5	5	5	5	5
c	Solenoid Valve -75 mm	Nos																
d	Solenoid Valve -90 mm	Nos																
e	Solenoid Valve -63 mm for fertigation Purpose	Nos	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
3	**Pump Start relay (24VAC)**	Nos	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
4	**Voltage Stabilizer**	Nos	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
5	**Conduit Pipe** (25mm/ 10 Kg/cm2 : IS 4985	Mtr	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160	160
6	**Cables**																	
a	Cables (1 Sqmm) IS 694	Mtr	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450	450
b	Cables (1.5 Sqmm) IS 694	Mtr																
c	Cables (2.5 Sqmm) IS 694	Mtr																
7	**Automatic Quick pressure release valve**	Nos																
a	1.5"	Nos	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
b	2"	Nos																
c	2.5"	Nos																
d	3"	Nos																
8	**Rain Sensor**	Nos	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
9	**Dry Gel Waterproof Connector (For wire Connections)**	Nos	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20
10	**Control station encloser box**	Nos	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	**2" Flow Detection Sensor**	Nos	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	**IoT SIM Charges with data and cloud charges @ 2 years**		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	**Fittings and Installations @ 5%**																	

* As per PDMC guidelines, the indicative cost is limited to ₹40,000 per Hectare.

**This indicative cost shall be multiplied by the area (in hectares) up to a maximum of 5 Hectares only.

***The subsidy shall be calculated based on the system cost or indicative cost, whichever is the less.

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Annexure-7

Mandatory Components for Wired Automation based Micro Irrigation System – 4 Hectares

S.No	Component Name	Unit	12mX12m	10mX10m	9mX9m	8mX8m	7mX7m	6mX6m	5mX5m	4mX4m	3mX3m	2.5mX2.5m	2mX2m	1.5mX1.5m	2.5mX0.6m	1.8mX0.6m	1.5mX0.6m	1.2mX0.6m
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
1	**Controllers**																	
a	Controller unit - 4 Station for Irrigation and Fertigation	Nos																
b	Controller unit - 5-12 Station for Irrigation and Fertigation	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
c	Controller unit - 4 Station with Pump Start relay and Voltage Stabilizer	Nos																
d	Controller unit - 5-12 Station with Pump Start relay and Voltage Stabilizer	Nos																
2	**Solenoid Valves**																	
a	Solenoid Valve -50 mm	Nos	**4**	**4**	**4**	**4**	**4**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**	**2**
b	Solenoid Valve -63 mm	Nos	**2**	**2**	**2**	**2**	**2**	**4**	**4**	**4**	**4**	**6**	**6**	**6**	**6**	**6**	**6**	**6**
c	Solenoid Valve -75 mm	Nos																
d	Solenoid Valve -90 mm	Nos																
e	Solenoid Valve -63 mm for fertigation Purpose	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
3	**Pump Start relay (24VAC)**	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
4	**Voltage Stabilizer**	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
5	**Conduit Pipe** (25mm/ 10 Kg/cm2 : IS 4985	Mtr	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**	**200**
6	**Cables**																	
a	Cables (1 Sqmm) IS 694	Mtr																
b	Cables (1.5 Sqmm) IS 694	Mtr	**800**	**800**	**800**	**800**	**800**	**800**	**800**	**800**	**800**	**800**	**800**	**800**	**800**	**800**	**800**	**800**
c	Cables (2.5 Sqmm) IS 694	Mtr																
7	**Automatic Quick pressure release valve**	Nos																
a	1.5"	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
b	2"	Nos																
c	2.5"	Nos																
d	3"	Nos																
8	**Rain Sensor**	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
9	**Dry Gel Waterproof Connector (For wire Connections)**	Nos	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**
10	**Control station encloser box**	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
11	**2" Flow Detection Sensor**	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
12	**IoT SIM Charges with data and cloud charges @ 2 years**		**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
13	**Fittings and Installations @ 5%**																	

* As per PDMC guidelines, the indicative cost is limited to ₹40,000 per Hectare.

**This indicative cost shall be multiplied by the area (in hectares) up to a maximum of 5 Hectares only.

***The subsidy shall be calculated based on the system cost or indicative cost, whichever is the less.

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Annexure-8

Mandatory Components for Wired Automation based Micro Irrigation System – 5 Hectares

S.No	Component Name	Unit	12mX12m	10mX10m	9mX9m	8mX8m	7mX7m	6mX6m	5mX5m	4mX4m	3mX3m	2.5mX2.5m	2mX2m	1.5mX1.5m	2.5mX0.6m	1.8mX0.6m	1.5mX0.6m	1.2mX0.6m
			Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty	Qty
1	**Controllers**																	
a	Controller unit - 4 Station for Irrigation and Fertigation	Nos																
b	Controller unit - 5-12 Station for Irrigation and Fertigation	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
c	Controller unit - 4 Station with Pump Start relay and Voltage Stabilizer	Nos																
d	Controller unit - 5-12 Station with Pump Start relay and Voltage Stabilizer	Nos																
2	**Solenoid Valves**																	
a	Solenoid Valve -50 mm	Nos	**2**	**2**	**2**	**2**	**2**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
b	Solenoid Valve -63 mm	Nos	**4**	**4**	**4**	**4**	**4**	**5**	**5**	**5**	**5**	**7**	**7**	**7**	**7**	**7**	**7**	**7**
c	Solenoid Valve -75 mm	Nos																
d	Solenoid Valve -90 mm	Nos																
e	Solenoid Valve -63 mm for fertigation Purpose	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
3	**Pump Start relay (24VAC)**	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
4	**Voltage Stabilizer**	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
5	**Conduit Pipe** (25mm/ 10 Kg/cm2 : IS 4985	Mtr	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**	**230**
6	**Cables**																	
a	Cables (1 Sqmm) IS 694	Mtr																
b	Cables (1.5 Sqmm) IS 694	Mtr	**1400**	**1400**	**1400**	**1400**	**1400**	**1400**	**1400**	**1400**	**1400**	**1400**	**1400**	**1400**	**1400**	**1400**	**1400**	**1400**
c	Cables (2.5 Sqmm) IS 694	Mtr																
7	**Automatic Quick pressure release valve**	Nos																
a	1.5"	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
b	2"	Nos																
c	2.5"	Nos																
d	3"	Nos																
8	**Rain Sensor**	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
9	**Dry Gel Waterproof Connector (For wire Connections)**	Nos	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**	**20**
10	**Control station encloser box**	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
11	**2" Flow Detection Sensor**	Nos	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
12	**IoT SIM Charges with data and cloud charges @ 2 years**		**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**	**1**
13	**Fittings and Installations @ 5%**																	

* As per PDMC guidelines, the indicative cost is limited to ₹40,000 per Hectare.

**This indicative cost shall be multiplied by the area (in hectares) up to a maximum of 5 Hectares only.

***The subsidy shall be calculated based on the system cost or indicative cost, whichever is the less.

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